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8. (Amended) An electroactively controlled membrane structure, comprising:

a membrane whose position is to be controlled;

a supporting base;

at least one electroactive bending actuator affixed to the supporting base; and connection means corresponding to each of the at least one electroactive bending actuators for operatively connecting the membrane to each of the at least one electroactive bending actuators;

wherein displacement of the at least one electroactive bending actuator effects displacement of the membrane; and

further wherein each connection means comprises a guiding wheel assembly and a track, wherein displacement of the actuator effects translation of the wheel assembly along the track, thereby imparting movement to the membrane.

9. (Amended) An electroactively controlled membrane structure, comprising: a membrane whose position is to be controlled;

a supporting base;

at least one electroactive bending actuator affixed to the supporting base; and connection means corresponding to each of the at least one electroactive bending actuators for operatively connecting the membrane to each of the at least one electroactive bending actuators;

wherein displacement of the at least one electroactive bending actuator effects displacement of the membrane; and

further wherein each connection means comprises:

a guiding track affixed to the membrane;

a guiding wheel assembly, the guiding wheel assembly further comprising an axle, affixed to the electroactive bending actuator, and four guiding wheels which maintain movement of the axle along the guiding track;

whereby bending of the actuator effects displacement of the membrane.

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